

U.S. Environmental Protection Agency

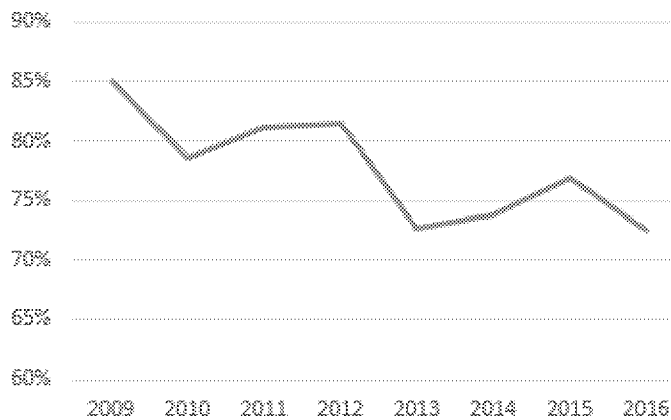
Executive Overview of FY 2016 End-of-Year Performance

(For Internal Use Only)

Office of Planning, Analysis, and Accountability
Office of the Chief Financial Officer
January 11, 2017

Executive Overview of FY 2016 End-of-Year Performance

Annual Targets Met

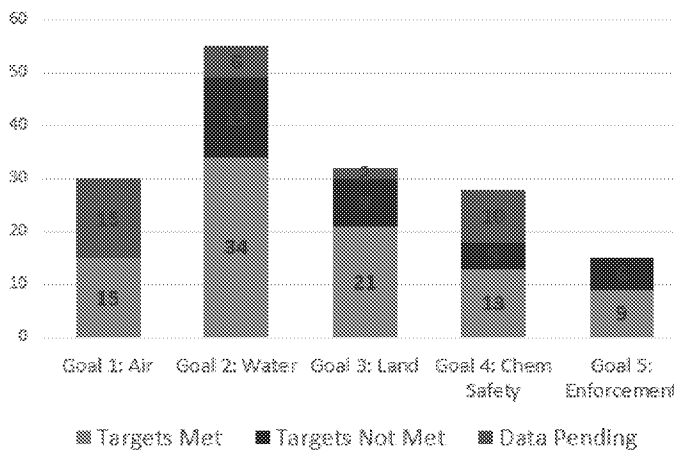


(Based on current PERS database; excludes measures with data not available; recent results subject to change as additional data become available)

EPA met 72% of annual targets in FY 2016, less than in previous years (similar to FY 2013).

- Decline is due in part to decreasing resources (\$ and FTEs) and changes in program priorities.

Status of FY 2016 Annual Targets by Goal

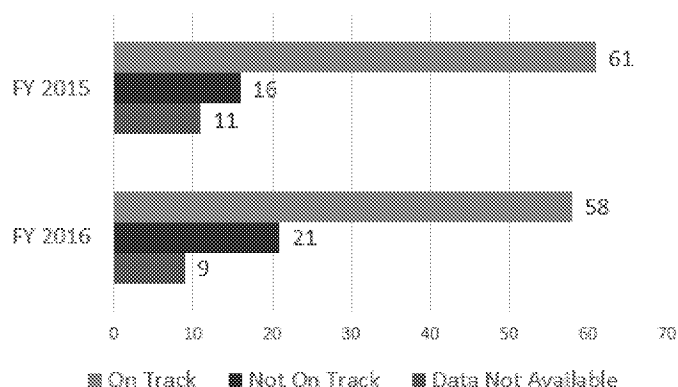


Annual performance results distributed across 5 strategic goals.

- Among annual measures with data available, EPA met 100% of targets in Goal 1, 69% of targets in Goal 2, 70% of targets in Goal 3, 72% of targets in Goal 4, and 60% of targets in Goal 5.
- Pending data due to data lags and biennial reporting.

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Progress Toward FY 2018 Strategic Targets by Year



Strategic measures not on track toward FY 2018 targets increased from 16 in FY 2015 to 21 in FY 2016.

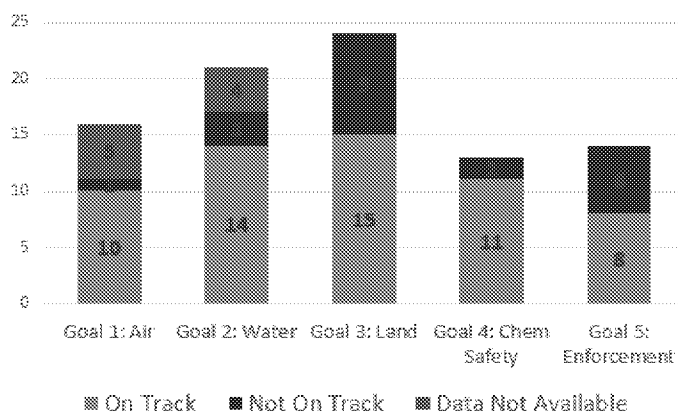
- Consistent with trends in annual results.

Contributing factors for measures not on track include declining resources, changes in program priorities or focus, and increasing complexity of remaining work; examples include.

- focus on higher-impact cases and declining resources for enforcement;
- increasing complexity of remaining sites and declining resources for cleanups;
- targeted program reductions in smart growth and chemical facility risk management; and
- challenges with existing chemical assessments – addressed by TSCA reform (next assessments expected in 3-4 years under new timeline).

As next Strategic Plan is developed, we will recalibrate performance measures to align with our priorities for the next 4 years.

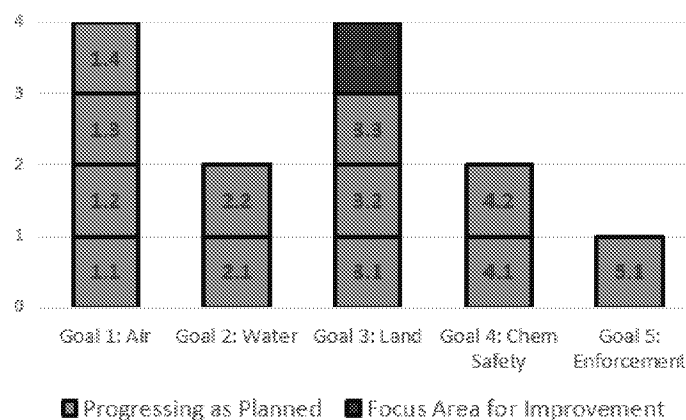
Progress Toward FY 2018 Strategic Targets by Goal (as of FY 2016)



Challenges within EPA's tribal programs are a factor for 4 measures not on track.

- Includes 2 GAP measures, CAA approvals, and UST cleanups.
- Challenges include tribal diversity, unique legal and policy issues, and need for improved EPA tribal data management.

Status of FY 2014-2018 Strategic Goal Objectives (FY 2016 Strategic Review)



12 of 13 strategic goal objectives progressing as planned, based on FY 2016 strategic reviews.

- Objective 3.4, "Strengthen Human Health and Environmental Protection in Indian Country," a focus area for improvement for the 3rd year
- Progress in many and diverse programs under each objective, even where some strategic measures are not on track.

Met FY 2016 targets for 3 out of the 5 FY 2016-2017 Agency Priority Goals (APGs):

- ***Reduce GHG emissions from cars and trucks:*** Automakers beat GHG standards for the fourth straight year in FY 2015.
- ***Advance resilience in the nation's water infrastructure, while protecting public health and the environment, particularly in high-risk and vulnerable communities:*** EPA promoted green infrastructure to reduce water pollution, assisting 74 communities. Demand from operators of small water utilities for EPA tools and training vastly exceeded expectations.
- ***Strengthen environmental protection through business process improvements enabled by joint governance and technology:*** E-Enterprise Joint Governance is strengthening delivery of environmental programs and reducing burden on states, tribes and regulated entities.

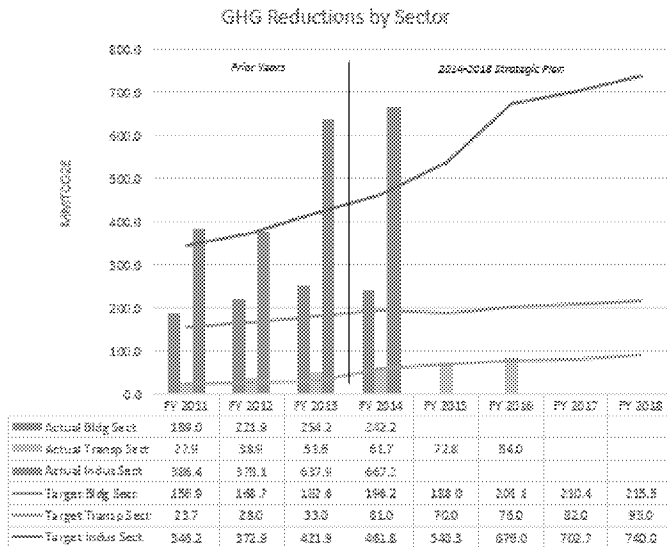
Mixed results for the other 2 APGs:

- ***Clean up contaminated sites to enhance the livability and economic vitality of communities:*** Additional 9,640 sites Ready for Anticipated Use (RAU) in FY 2016, but Superfund and RCRA missed cleanup targets due to increased complexity of remaining sites and limited resources.
- ***Assess and reduce risks posed by chemicals and promote the use of safer chemicals in commerce:*** Completed 1,025 assessments of pesticides and other chemicals. Missed FY 2016 existing chemicals target and zeroed FY 2017 targets; TSCA reform set new timelines and requirements.

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Goal 1: Addressing Climate Change and Improving Air Quality

Objective 1: Address Climate Change

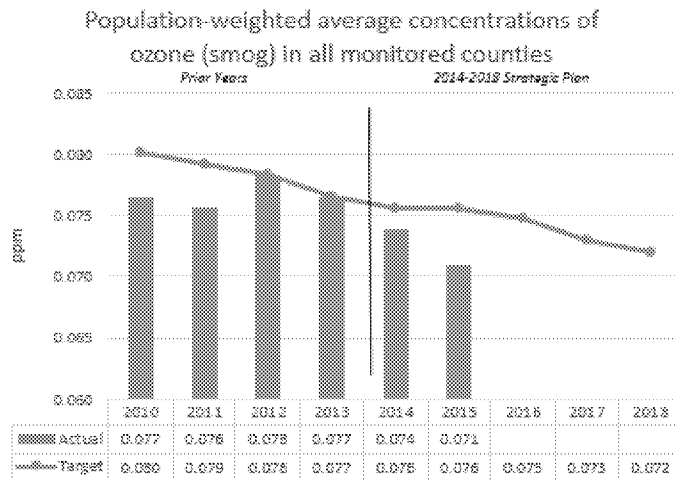


EPA partnerships with building, transportation, and industry sectors avoided 971 metric tons of CO₂ equivalents, exceeding targets. (Latest available data - FY 2014)

Automakers beat GHG standards for the fourth straight year in FY 2015 (FY 2016-2017 APG). In addition, in FY 2016, EPA and National Highway Traffic Safety Administration finalized standards for medium- and heavy-duty vehicles that over the lifetime of covered vehicles will:

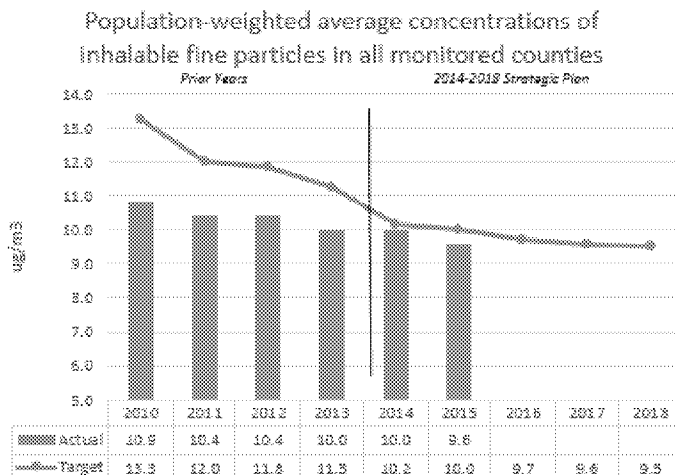
- lower CO₂ emissions by 1.1 billion tons;
- save \$170 billion in fuel costs; and
- reduce oil consumption by up to two billion barrels.

Objective 2: Improve Air Quality



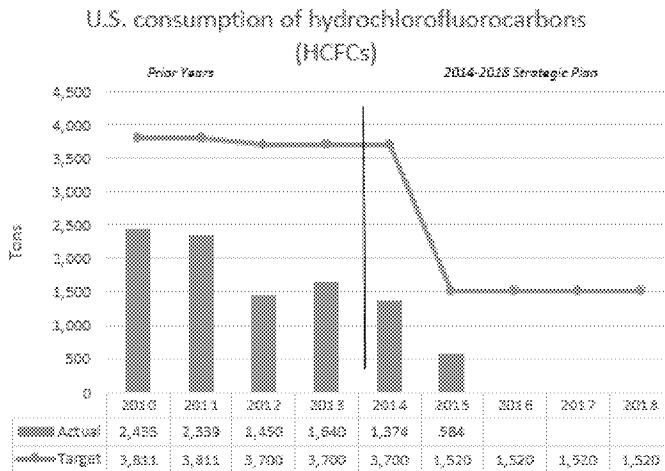
Ambient levels of major pollutants are at their lowest levels since clean air programs were established.

- From FY 2003 to FY 2015, population-weighted ambient concentrations of ozone and PM_{2.5} decreased 21% and 32%, respectively.
- Through FY 2015, U.S. power plant SO₂ emissions decreased by 78% from the 2005 level.
- In FY 2016, an ORD-funded study linked exposure to certain types of air pollution to faster progression of hardening and narrowing of the arteries, or atherosclerosis.
- Compared with FY 2013, EPA has reduced the number of backlogged SIPs by 46%.



Executive Overview of FY 2016 End-of-Year Performance
Goal 1: Addressing Climate Change and Improving Air Quality

Objective 3: Restore and Protect the Ozone Layer

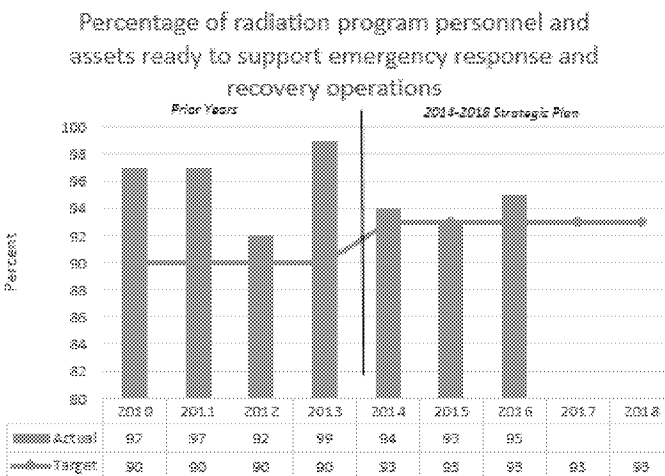


In FY 2015, U.S. HCFC consumption declined to 584 tons of ozone-depleting potential, well below the level of 1,520 tons required by the Montreal Protocol. Results are supported by:

- EPA limits on HCFC production and imports;
- regulations on refrigerant management and other requirements; and
- listing of alternatives for HCFCs under the Significant New Alternatives Policy program.

As production of ozone-depleting substances declines, demands grow for flexibility. EPA manages exemption programs to address critical needs.

Objective 4: Minimize Exposure to Radiation



EPA demonstrated a continued high level of radiological emergency response readiness, scoring 95% in FY 2016.

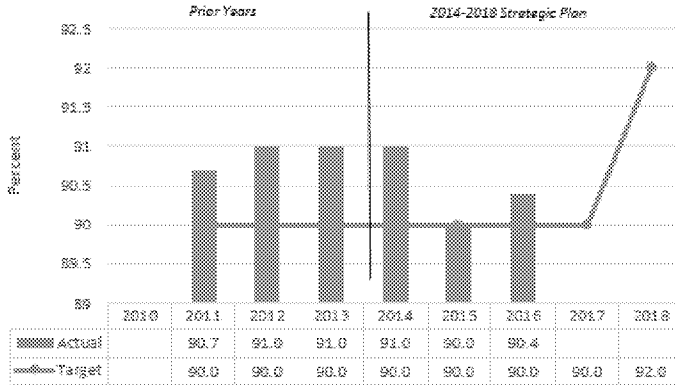
- Between FY 2011 and FY 2016, EPA increased the number of RadNet monitors from 124 to 135, increased the percentage of operating monitors from 80% to a standard of 92% (monitors must be taken offline for maintenance on a regular basis), and decreased the time before data is available during an emergency from 0.5 to 0.3 days.
- Maintaining scientific expertise in the radiological field continues to be a challenge due to aging of the original Atomic Age workforce.

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Goal 2: Protecting America's Waters

Objective 1: Protect Human Health

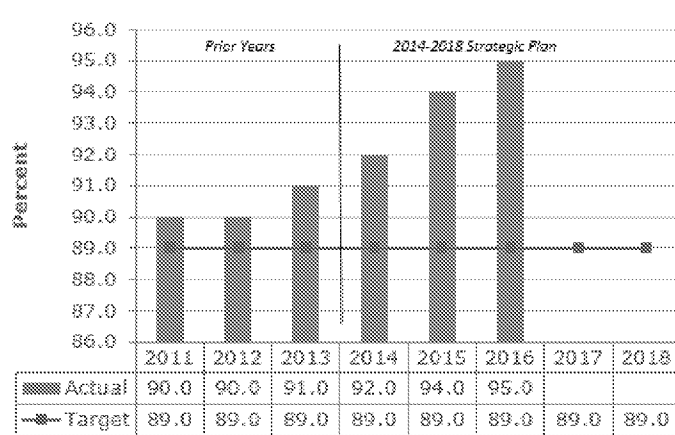
Percentage of community water systems providing drinking water that meets all applicable health-based standards



Community water systems (CWSs) met the FY 2016 target for health-based drinking water standards.

- EPA met DW compliance targets through targeted enforcement, technical and managerial support, and investments through the WIFIA and DWSRF to address aging infrastructure and other challenges.
- OW published a new DW Action Plan, urging stakeholders to work together to increase the safety and reliability of drinking water.
- Water Community Assistance for Resiliency and Excellence (WaterCARE) initiative provides financial planning assistance for 10 communities for infrastructure improvements. Case studies being developed to identify scalable solutions.

Fund utilization rate for the DWSRF



The utilization rate for the Drinking Water State Revolving Fund (DWSRF) has consistently increased over the last few years.

- From 2014-2016 states signed a record amount of funds into new loans. This resulted from EPA and state implementation of the 2014 *Unliquidated Obligation (ULO) Strategy*, which led many states to develop agile cash flow models to more accurately balance fund inflows and outflows.

Since 2006 Americans have saved more than \$32 billion on utility bills and 1.5 trillion gallons of water by purchasing WaterSense-labeled products.

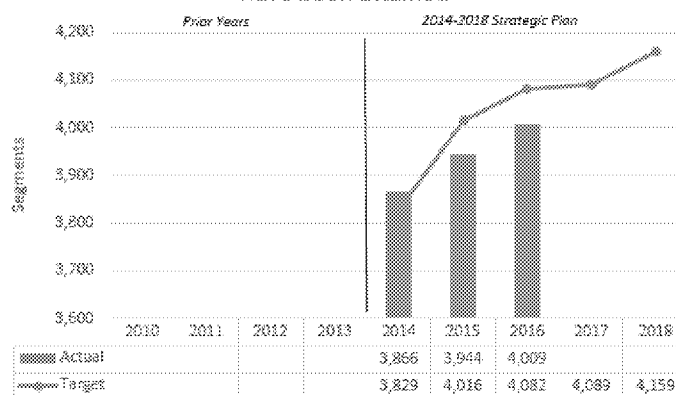
- WaterSense, a voluntary public-private partnership program, spurs development and purchase of water-efficient consumer products.
- In FY 2016, close to 4,400 product models were added to the more than 20,300 WaterSense models in the marketplace and 121 new WaterSense partners joined the effort.

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Goal 2: Protecting America's Waters

Objective 2: Protect and Restore Watersheds and Aquatic Ecosystems

Water body segments identified in 2002 as not attaining standards in which water quality standards have been attained



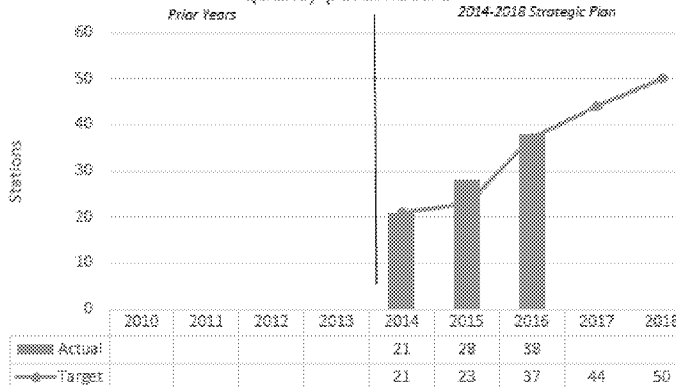
EPA missed the target for impaired water body segments meeting water quality standards as the agency transitions to a new, better measure.

- Results have been flat for several years due in large part to an outdated 2002 baseline. EPA is evaluating a new consistent approach (e.g., Water Quality Framework) for measuring local priority improvements in water quality from investments in protection and restoration.

Geographic-based work is improving water quality.

- EPA's Trash-free Waters, Urban Waters, and Green Infrastructure programs helped improve water quality in communities, restored recreational waters and provided new green spaces. For example, in the San Francisco Bay Area, the Trash Free Waters program reduced 60 tons of food packaging waste annually since FY 2012, saving participating businesses \$3,000 per year.
- EPA's Green Infrastructure efforts, assisting 74 communities in FY 2016, advanced resilience in the nation's water infrastructure (FY 2016-2017 APG). Green Infrastructure captures storm water to prevent flooding and losses (estimated at hundreds of millions of dollars) and enhances filtration before pollutants enter waterways.

Baseline monitoring stations in tribal waters with improvements in one or more of seven key water quality parameters



Water quality monitoring stations in tribal waters are showing improvements in water quality.

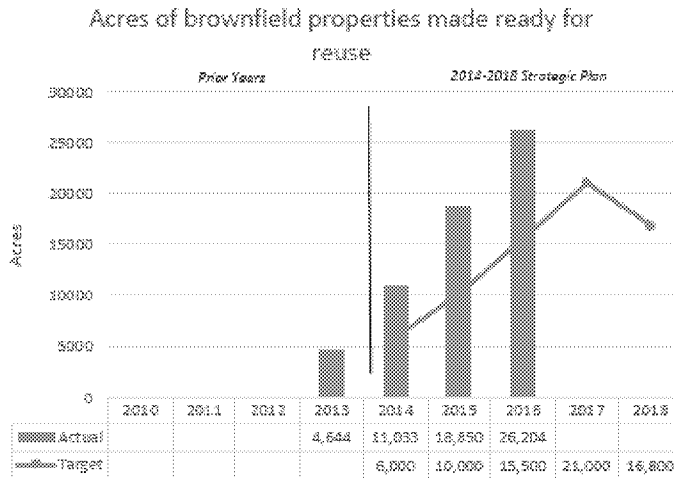
- EPA on track to meet FY 2018 strategic target: 50 stations showing water quality improvements.
- EPA finalized rules in FY 2016 to streamline the process for tribes to seek treatment in a similar manner as states under the CWA to establish water quality standards, identify impaired waters and establish TMDLs.

EPA's Office of Research and Development (ORD) providing key support to evaluate water quality.

- Nutrient Sensor Challenge accelerating the development of affordable and accurate next-generation sensors.

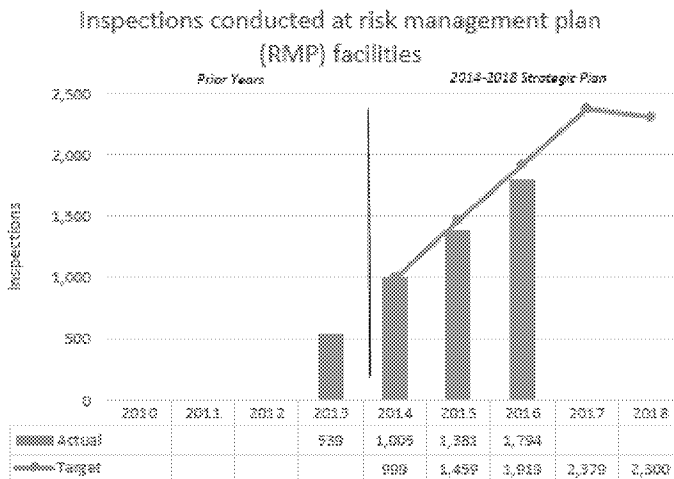
Executive Overview of FY 2016 End-of-Year Performance
Goal 3: Cleaning Up Communities and Advancing Sustainable Development

Objective 1: Promote Sustainable and Livable Communities



EPA's Brownfields program restores land and drives economic development; FY 2015 and 2016 results significantly surpassed FY 2018 Strategic Target.

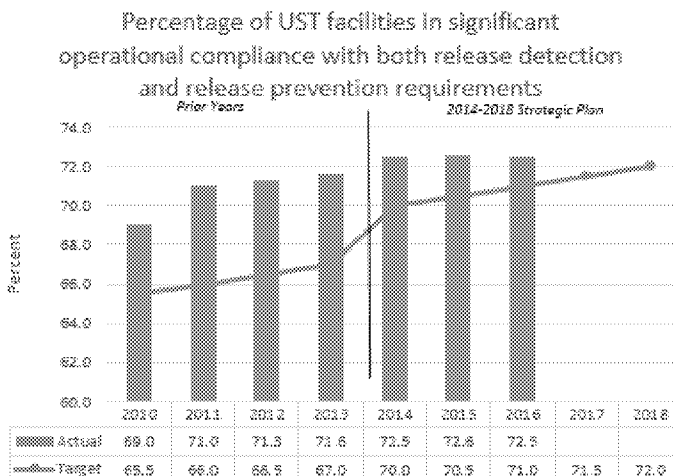
- From FY 2013 to FY 2016, brownfields federal funding has made 26,204 acres ready for reuse, leveraged more than 115,600 jobs and raised \$24.77 billion from public and private sources.
- Challenges include meeting the demands for assistance and ensuring funds from revolving loan funds are available for additional projects.
- Local governments near 48 brownfield sites collected an estimated total of \$29-97 million in additional taxes in a single year after cleanup (2-7 times the \$12.4 million EPA contribution).



Inspections behind schedule at chemical facilities due to limited funding and other priorities, such as the Chemical Safety Executive Order.

- EPA inspects less than 4% of the universe of Risk Management Plan (RMP) facilities each year.
- EPA has made progress advancing other important priorities, including the E.O. which protects workers and communities.

Objective 2: Preserve Land



Number of UST facilities in significant operational compliance with leak detection and prevention requirements has increased to 72.5%, and the number of UST releases has decreased 10.25% over the past 7 years.

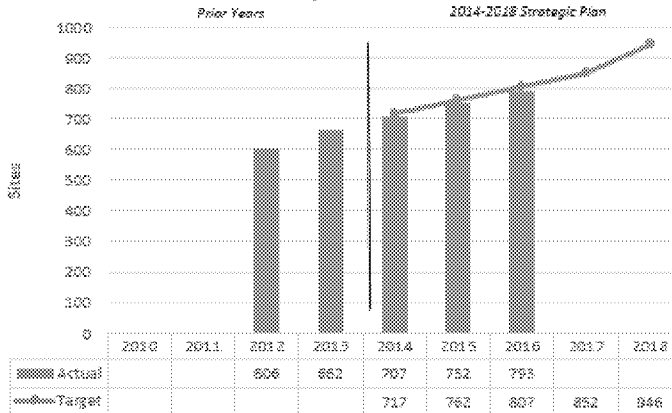
- However, frequent regulatory presence is needed to keep small businesses tank owners and operators focused on UST compliance concerns.

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Goal 3: Cleaning Up Communities and Advancing Sustainable Development

Objective 3: Restore Land

Superfund sites that are "sitewide ready for anticipated use"

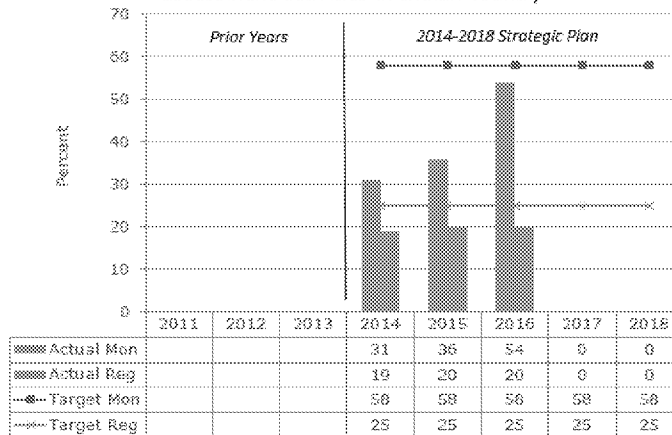


Pace of cleanups has slowed, as cleanups become more challenging and complex.

- Additional 9,640 sites Ready for Anticipated Use (RAU) in FY 2016 (FY 2016-2017 APG), but Superfund and RCRA missed cleanup targets due to limited resources and challenging and complex environmental problems (e.g., the persistent presence or perceived presence of hazardous substances in soil, sediment, and groundwater).

Objective 4: Strengthen Human Health and Environmental Protection in Indian Country

Percent of tribes implementing federal regulatory environmental programs, and percentage of tribes conducting EPA-approved environmental monitoring and assessment activities in Indian country



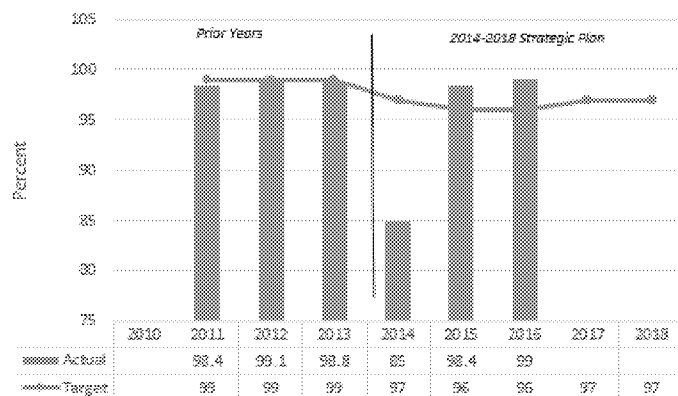
Most tribes not seeking authority to implement federal environmental regulatory programs, but more tribes are taking on monitoring activities.

- This objective remains a Focus Area of Improvement for third year as a result of strategic reviews. Challenges include tribal diversity (population, culture, geography, expertise); unique legal and policy issues; and need for improved EPA tribal data management.
- EPA carrying out direct implementation program assessments to help address the challenges. EPA also working to improve tribal measures through the Indian General Assistance Program (GAP) Performance Management System, and exploring ways to strengthen EPA-tribal joint planning.

Executive Overview of FY 2016 End-of-Year Performance
Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution

Objective 1: Ensure Chemical Safety

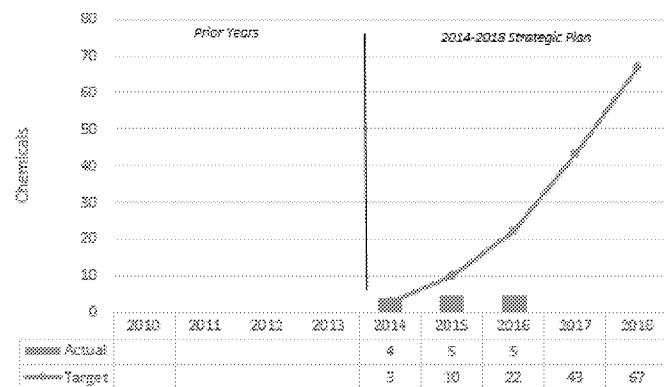
Percent of decisions completed on time (on or before PRIA or negotiated due date)



Pesticides Program on track to meet all deadlines while addressing unforeseen events like Zika.

- Completed 99% of PRIA decisions on time; registered 20 new active ingredients and completed 213 new use registration decisions.
- On track to meet 2022 deadline to complete registration review risk assessments and make decisions on all pesticides registered prior to October 1, 2007; by end of FY 2016, had reregistered 20,077 out of 25,044 products.
- In FY 2016, Pesticides Program also acted to:
 - reduce spread of Zika using expert technical assistance and communications support;
 - mitigate endangered species risks: first-ever biological evaluations – 3 organophosphates;
 - advance assessment of effects of pesticides on pollinators: first comprehensive bee assessment of a neonicotinoid insecticide

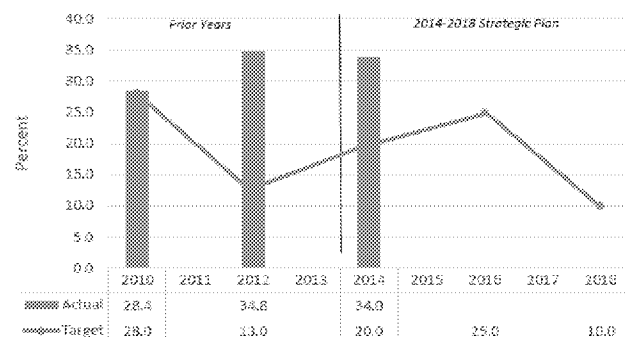
Number of currently identified TSCA Work Plan Chemicals assessed



Amended Toxic Substances Control Act (TSCA), enacted in June 2016, more flexible, but delays assessments for Existing Chemicals Program.

- The Existing Chemicals program had completed 5 assessments prior to the new Act. Now program has 3.5 years to complete assessments for the first 10 chemicals, which have been selected and made public. (FY 2016-2017 APG: Missed Existing Chemicals target; New Chemicals, Pesticides, EDSP on track.)
- Processing of New Chemicals and Chemical Processes (i.e., not one of 60,000 documented as existing in commerce under TSCA) is expected to continue to keep up with the 1000 assessment requests from industry per year.

4.1 Percentage difference in the geometric mean blood lead level in low-income compared to non-low income children 1-5 years old



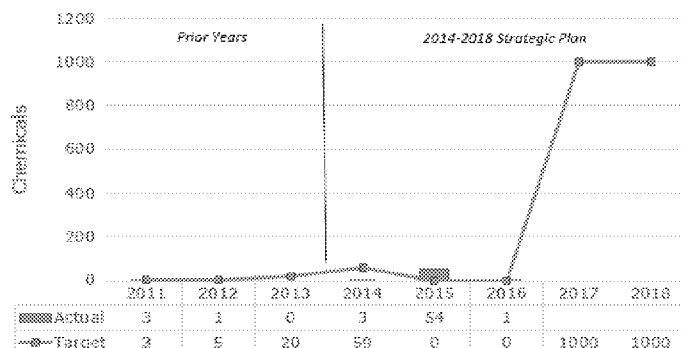
Overall blood lead levels in children declined; low/non-low income disparity remains high.

- Key source is lead paint in older homes.
- Only 25% of certified Renovation Repair and Painting firms seek recertification.
- In FY 2016, EPA expanded a pilot program using education and outreach to urban area followed by enforcement actions. Local certifications increased afterward in the pilot area.

Executive Overview of FY 2016 End-of-Year Performance
Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution

Objective 1 (continued)

Number of chemicals for which Endocrine Disruptor Screening Program (EDSP) decisions have been completed

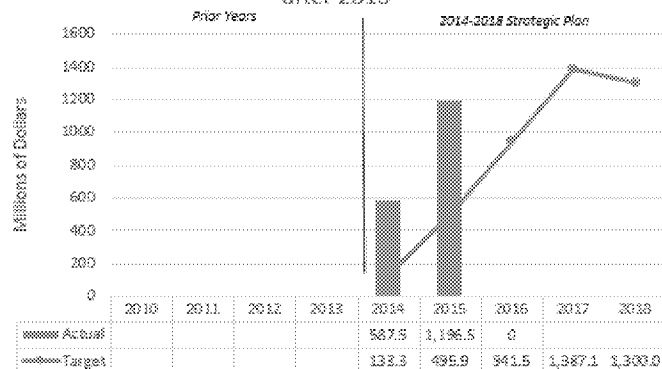


Endocrine Disruptor Screening Program to complete 1,000 screenings/year, up from 54 max.

- Over 10 years, ORD developed high throughput testing (data gathered on large number of cell samples subjected to chemicals) and computational toxicology (computer models of pathways and reactions that chemicals follow in living creatures) to assess the probability of endocrine disruption for different chemicals. These techniques are alternatives to inefficient testing using animals.
- FY 2016 is transition year; results in FY 2017.
- Breakthrough in efficiency will rapidly increase knowledge of likely chemical health impacts.
- ORD could potentially apply these methods to screen for neurotoxicity, cancer and more.

Objective 2: Promote Pollution Prevention

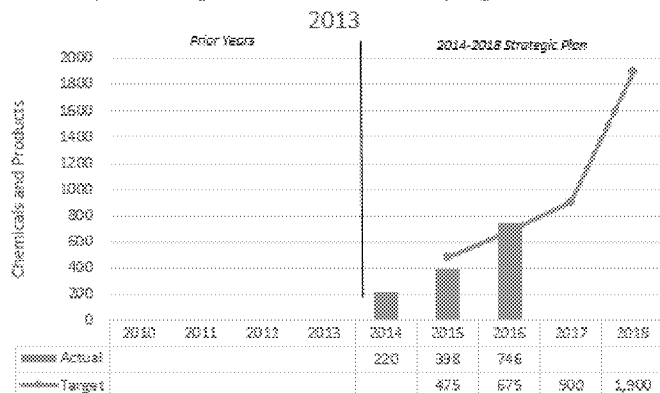
Business, institutional, and governmental costs saved through pollution prevention improvements after 2013



Market-based voluntary Pollution Prevention (P2) Program exceeds targets to save industry money through pollution prevention.

- P2 helps small manufacturers save money by reducing water, electricity and solid waste usage and associated pollution.
- The results shown are only for new changes made and do not reflect recurring savings from past improvements.

Safer chemicals and chemical products recognized by the Design for the Environment program after 2013



Safer Choice labels increase transparency for consumers.

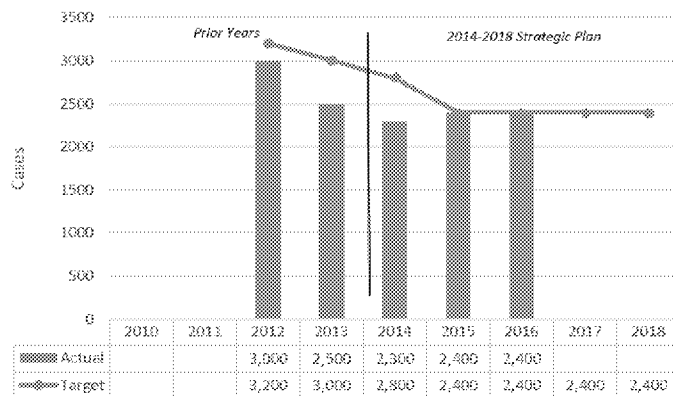
- Chemicals and chemical products that meet EPA's stringent criteria for low risks can earn the Safer Choice label.
- This voluntary program has attracted companies that see a potential market for "safer" products.

Executive Overview of FY 2016 Performance

Goal 5: Protecting Human Health and the Environment by Enforcing Laws and Ensuring Compliance

Objective 1: Enforce Environmental Laws to Achieve Compliance

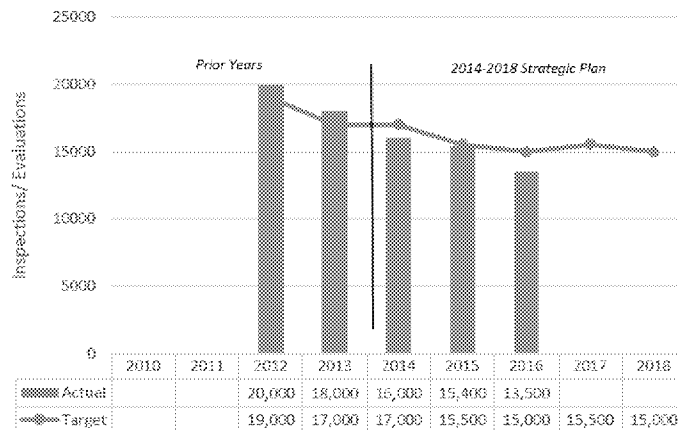
Number of civil judicial and administrative enforcement cases concluded



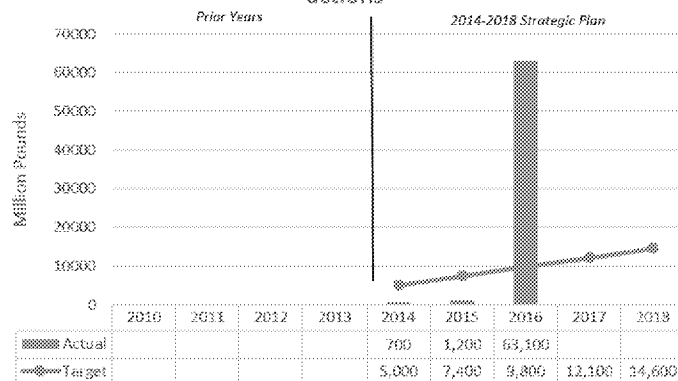
EPA met key performance goals and had a record year for penalties but missed its FY 2016 inspections target.

- In FY 2016, EPA met its goal for civil judicial and administrative case conclusions (2,400), and obtained nearly \$5.8 billion in federal administrative and civil judicial penalties. This result was dominated by the record setting \$5.6 billion Clean Water Act penalty from BP Exploration and Production Inc., in the Deepwater Horizon case.
- EPA was also very successful in reviewing open consent decrees for overall compliance status (100% reviewed).
- EPA missed its target for FY 2016 inspections. Inspections have declined over the last 5 years concurrent with reduced budget and travel funds; this trend is expected to continue if budget reductions continue.

Number of federal inspections and evaluations



Hazardous waste treated, minimized, or properly disposed as a result of concluded enforcement actions



EPA exceeded its targets for reducing hazardous waste and toxic pesticide pollutants, but fell short of meeting targets for reductions in air and water pollution.

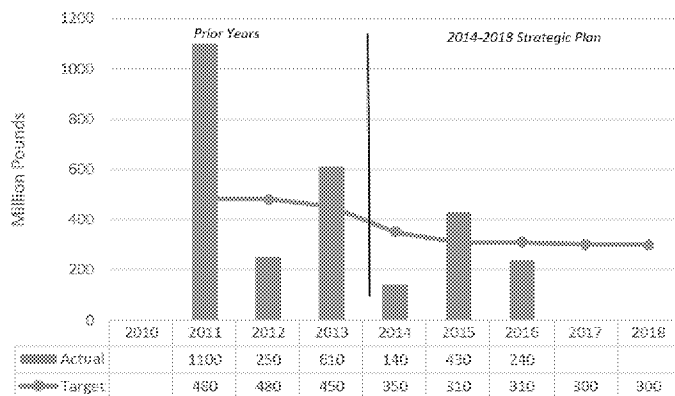
- Environmental benefits of enforcement actions can vary significantly year to year depending on the number and types of cases settled in a particular year. Results can be much higher or much lower than the targets.
- EPA far exceeded its target for hazardous waste. In FY 2016, EPA concluded a record settlement with Mosaic LLC addressing RCRA violations at its phosphate chemical facilities for mismanagement of hazardous waste. The settlement set a case record -- an estimated 62 billion pounds of hazardous waste will be reduced, minimized, or properly disposed of.

Executive Overview of FY 2016 Performance

Goal 5: Protecting Human Health and the Environment by Enforcing Laws and Ensuring Compliance

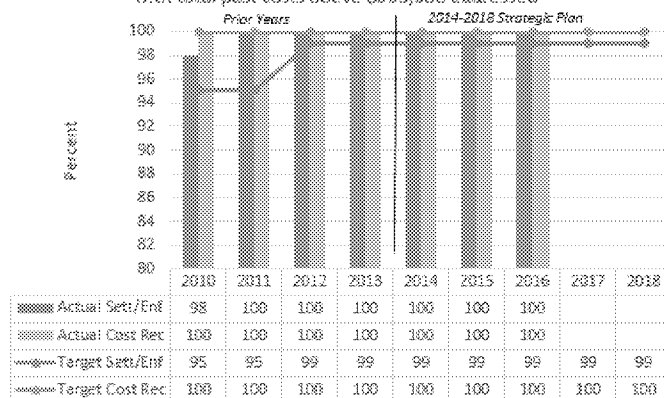
Objective 1 (continued)

Air pollutants reduced, treated, or eliminated as a result of concluded enforcement actions



- EPA missed its FY 2016 target for reduction of air pollutants as a result of concluded enforcement actions, due in part to increased focus on facilities that emit illegal levels of toxic air pollutants. Cases that reduce smaller amounts of illegal toxic air emissions have a public health benefit comparable to EPA's cases that have had higher total air pollutant reductions in the past.
- EPA also missed its FY 2016 target for reduction of water pollutants (not pictured). Reductions are expected to decline as EPA completes sewer system enforcement work with larger cities and shifts its focus to smaller cities.

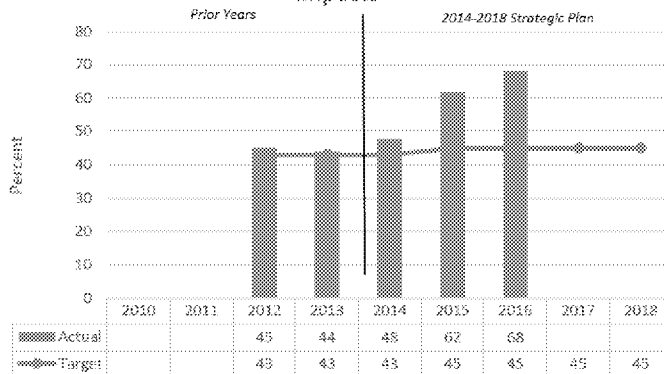
Superfund sites with non-fed RPs with settlements or enforcement actions; Cost recovery statute of limitation cases with total past costs above \$500,000 addressed



EPA exceeded Superfund enforcement targets.

- EPA achieved its goal of 100% of Superfund sites having viable non-federal responsible parties with settlements reached or enforcement actions taken; and 100% of cost recovery statute of limitation cases with total past costs above \$500,000 addressed – meeting both targets (not graphed)
- In FY 2016, private party Superfund cleanup commitments exceeded \$1 billion. Additionally, EPA billed private parties for \$92 million in “oversight” costs, the third highest amount ever billed during a fiscal year.

Percentage of criminal cases having the most significant health, environmental, and deterrence impacts



EPA exceeded target for the percentage of criminal enforcement cases having the most significant health, environmental, and deterrence impacts.

- EPA is pursuing fewer, but more complex and higher impact criminal cases.